

V.C. SUMMER NUCLEAR STATION

NRC JOB PERFORMANCE MEASURE

JPSF-012

DROPPED ROD RECOVERY

Revision No. 1

Faulted JPM

A19

DROPPED ROD RECOVERY

TRAINEE _____ EVALUATOR _____

EVALUATOR SIGNATURE _____ DATE _____

EVALUATION METHOD: PERFORM
EVALUATION LOCATION: SIMULATOR

ESTIMATED TIME: 10.0 MINUTES TIME STARTED: _____

10CFR55.45 (A) 5

TIME CRITICAL: No FAULTED JPM: Yes

TRAINEE PERFORMANCE: SATISFACTORY _____ UNSATISFACTORY _____

READ TO OPERATOR:

WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES.
WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

INITIAL CONDITIONS:

1. Plant was operating at 75% power with all controls in automatic when control rod "F2" dropped due to a blown fuse. The blown fuse was replaced in the 1AC power cabinet. Actions of AOP-403.6 have been completed through Step 10.

TOOLS AND EQUIPMENT NEEDED:

1. AOP-403.6 (TO RECORD AFFECTED BANK HEIGHTS)

REFERENCED DOCUMENTS:

1. AOP*403.6 DROPPED CONTROL ROD

REV DATE

10/10/97

TASK STANDARDS:

1. Manual reactor trip inserted after second control rod drops.

DROPPED ROD RECOVERY

INITIATING CUES:

1. CRS has directed NROATC to recover control rod "F-2" per AOP-403.6, starting with Step 11.

TERMINATING CUES:

1. Manual reactor trip inserted.

SAFETY CONSIDERATIONS:

NONE

JOB PERFORMANCE MEASURE CHECKLIST

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(S) DENOTES SEQUENCED ELEMENT

(*) DENOTES CRITICAL ELEMENT

PERFORMANCE CHECKLIST:

SAT. UNSAT.

STEP

STANDARD

1. Record Step Counter readings for both groups of the affected bank.

Step counter reading for both groups in Control Bank "A" have been recorded.

NOTE 2: Booth operator gives examinee P/A converter reading of 228 steps.

STEP

STANDARD

2. Record P to A Converter Reading.

P to A converter reading has been recorded.

STEP

STANDARD

- *3. Rotate ROD CNTRL BANK SEL switch clockwise to the affected bank position

ROD CNTRL BANK SEL Switch has been rotated clockwise to the CBA position

COMMENTS: _____

STEP

STANDARD

4. Manually reset Demand Step Counter for the affected group to zero.

The step counter for Bank A GROUP 1 has been reset to zero

NOTE 5: As the CRS, examiner should prompt the examinee to disconnect the affected bank. Explain that the BOP operator will watch the MCB while he accomplishes this task.

STEP

STANDARD

- *5. Place all Lift Coil Disconnect Switches for the affected bank, except switches for the dropped rod, to the ROD DISCONNECTED position

All lift coil disconnect switches for Control Bank "A" rods, except Rod "F-2", have been placed in the ROD DISCONNECTED position

JOB PERFORMANCE MEASURE CHECKLIST

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(S) DENOTES SEQUENCED ELEMENT
(*) DENOTES CRITICAL ELEMENT

PERFORMANCE CHECKLIST:

SAT. UNSAT.

COMMENTS: _____

NOTE 6: Rod Control System Fail Urgent Alarm will alarm. If examinee asks whether to depress the ROD CNTRL ALARM RESET switch, as the CRS, direct him to depress the switch after the rod has been realigned.

STEP

STANDARD

*6. Withdraw the dropped rod:
drive the affected bank out

Rod F2 is moving in the outward
direction

COMMENTS: _____

STEP

STANDARD

7. Verify dropped rod movement on
the digital rod position
indicator.

DRPI indicator for rod "F-2" in Bank "A"
is verified to be moving out in 6 step
increments.

STEP

STANDARD

8. When dropped rod moves 6
steps, then verify ONE ROD ON
BOTTOM annunciator clears.

ONE ROD ON BOTTOM annunciator is
observed to be flashing (in the reset
condition)

NOTE 9: No turbine manipulations are required since TAVG will remain within
2°F of TREF.

JOB PERFORMANCE MEASURE CHECKLIST

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(S) DENOTES SEQUENCED ELEMENT
(*) DENOTES CRITICAL ELEMENT

PERFORMANCE CHECKLIST:

SAT. UNSAT.

STEP

STANDARD

9. Adjust turbine load to maintain Tav_g within $\pm 5^{\circ}\text{F}$ of Tref.

Tav_g - Tref within $\pm 5^{\circ}\text{F}$.

STEP

STANDARD

S*10. Observes a second control rod drops into the core.

Observes control rod P6 drop into the core.

COMMENTS: _____

NOTE 11: The examinee should insert a manual reactor trip upon observing control rod P6 drop. Continuing to withdraw original dropped rod more than 12 steps after the second rod is dropped constitutes failure.

STEP

STANDARD

*11. Inserts a manual reactor trip

Places the manual reactor trip switch to the TRIP position. Both Reactor Trip breakers indicate green light ON, red light OFF. All rod bottom lights are lit.

COMMENTS: _____

Examiner Stops JPM At This Point

TIME STOPPED: _____

DROPPED ROD RECOVERY

GENERAL COMMENTS:

NRC KA REFERENCES:KA NUMBER

000003.EA1.02

Ability to operate controls
and components necessary to
recover a dropped rod.

IMPORTANCE	FACTOR
<u>RO</u>	<u>SRO</u>
3.6	3.4